

AMENDMENTS TO THE SPECIFICATION

Please replace paragraph [0001] of the published application with a clean version of the following marked-up paragraph:

[0001] This application claims the benefit of priority of United States Provisional Patent Application Serial No. 60/249,145, filed ~~November 16, 2001~~ November 16, 2000, entitled **CONTROL SYSTEM METHODS AND APPARATUS FOR INDUCTIVE COMMUNICATION ACROSS AN ISOLATION BARRIER.**

Please replace paragraph [0059] of the published U.S. application corresponding with the present application, having publication number US 2002/0150156 A1 (herein the “published application”), with a clean version of the following marked-up paragraph:

[0059] With further reference to FIG. ~~[[1]]~~ 2, the PWM-encoded control signal is applied to transformer 18' for transfer across the isolation barrier. The isolation barrier constitutes any physical barrier across which isolation is desired. This can be a physical barrier, such as a quartz, glass, ceramic or other separation medium. It can also be a "virtual" barrier, such as an equipment boundary, plant boundary, and/or geographic point across which galvanic or other electrical (and physical) protection is desired. Regardless, the barrier 20 need only permit the inductive transfer of electromagnetic waves, e.g., of the type generated between the primary and secondary coils of a transformer 18' or other inductive circuit elements.

Please replace paragraph [0066] of the published application with a clean version of the following marked-up paragraph:

[0066] The analog signals received from the ~~control~~ field device 14 are graphically depicted by waveform 14a. These signals are passed through a band pass filter 36 when the control device 12 is not generating and transmitting control signals and, thus, when the illustrated Transmit Enable signal is not asserted. The band pass filter 36 removes frequency components of the analog device signals outside the range 1 kHz-15 kHz and, preferably, outside the range 3 kHz-12 kHz. This has the effect of removing noise from the signal.

Please replace paragraph [0070] of the published application with a clean version of the following marked-up paragraph:

[0070] Amplitude modulated device signals inductively transferred by the transformer 18" across the isolation barrier 20 are graphically depicted by wave 38b in the drawing. This signal is demodulated back into analog FSK form in any manner, proprietary or otherwise, known in the art. In the illustrated embodiment, by way of non-limiting example, this is accomplished through use of an envelope detector 40 with a time constant of between 1 μ S and 2.5 μ S and, preferably 1.5 μ S. A preferred envelope detector comprises an capacitor of 220 pf and a resistor 6.81 **[[kU]]** k Ω configured as shown. Those skilled in the art will appreciate that capacitors and resistors of other values may be utilized to achieve the desired time constants.